

GPRAMA Science Evaluation Background, Key Guidelines

Government Performance and Results Act (GPRA) Modernization Act (GPRAMA), 2010

SMD-provided input should be considered a starting point. Items for consideration must:

- clearly advance the previously existing body of knowledge
- result in whole or in part from NASA-funded programs/data
- be from the period of time aligning roughly with Fiscal Year 2022, and must exclude any items on which 2021 evaluation was based unless 2022 progress represents significant advancement beyond that previously considered

Results published in peer-reviewed literature are strongly preferred.

Evaluation is intended to be a high-level (not comprehensive) assessment.

FY22 GPRAMA Science Performance Goals

PERFORMANCE GOALS

1.1.1 NASA shall demonstrate progress in characterizing the behavior of the Earth system, including its various components and the naturally-occurring and human-induced forcings that act upon it.

1.1.2 NASA shall demonstrate progress in enhancing understanding of the interacting processes that control the behavior of the Earth system, and in utilizing the enhanced knowledge to improve predictive capability.

1.2.1 NASA shall demonstrate progress in exploring and advancing understanding of the physical processes and connections of the Sun, space, and planetary environments throughout the Solar System.

1.2.2 NASA shall demonstrate progress in exploring and probing the origin, evolution, and destiny of the galaxies, stars, and planets that make up the Universe.

1.2.3 NASA shall demonstrate progress in exploring, observing, and understanding objects in the Solar System in order to understand how they formed, operate, interact, and evolve.

1.2.4 NASA shall demonstrate progress in discovering and studying planets around other stars.

1.2.5 NASA shall demonstrate progress in improving understanding of the origin and evolution of life on Earth to guide the search for life elsewhere, exploring and finding locations where life could have existed or could exist today, and exploring whether planets around other stars could harbor life.

1.2.6 NASA shall demonstrate progress in developing the capability to detect and knowledge to predict extreme conditions in space to protect life and society and to safeguard human and robotic explorers beyond Earth.

1.2.7 NASA shall demonstrate progress in identifying, characterizing, and predicting objects in the Solar System that pose threats to Earth or offer resources for human exploration.

1.2.8 NASA shall demonstrate progress in understanding the properties of physical and biological systems in spaceflight environments to advance scientific knowledge, enable space exploration, and benefit life on Earth.

Guidelines for Science Progress Ratings

Color	Definition
GREEN	Expectations for the research program fully met in context of resources invested.
YELLOW	Some notable or significant shortfalls, but some worthy scientific advancements achieved.
RED	Major disappointments or shortfalls in scientific outcomes, uncompensated by other unusually positive results.